

HVAC GENERAL NOTES

- REFER TO ALL OTHER DRAWINGS AND SPECIFICATIONS, AND BASE BUILDING DRAWINGS & SPECIFICATIONS AND BE RESPONSIBLE FOR ALL APPLICABLE PROVISIONS THEREIN.
- FURNISH AND INSTALL ALL NECESSARY LABOR AND MATERIALS FOR A COMPLETE SYSTEM. ANY APPLIANCES OR MATERIALS OBVIOUSLY A PART OF THE SYSTEM AND NECESSARY FOR ITS PROPER OPERATION, ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN, SHALL BE FURNISHED AND INSTALLED AS IF CALLED FOR IN DETAIL.
- WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES, AND NFPA STANDARD 90A.
- DRAWINGS ARE GENERALLY DIAGMMATIC AND DO NOT NECESSARILY SHOW EVERY FITTING AND DETAIL. INSTALL DUCTS, EQUIPMENT AND CONTROLS IN A NEAT WORKMANLIKE MANNER, AND IN ACCORDANCE WITH GOOD PRACTICE FOR A COMPLETE WORKABLE INSTALLATION. AVOID CONFLICT WITH OTHER WORK. MAKE ADEQUATE PROVISIONS FOR PREVENTING NOISE AND VIBRATION. ARRANGE EQUIPMENT IN THE AVAILABLE SPACE IN A MANNER TO MAKE ALL WORKING PARTS ACCESSIBLE FOR MAINTENANCE AND SERVICE.
- PROTECT ALL MATERIALS AND EQUIPMENT FROM DAMAGE.
- EQUIPMENT AND MATERIALS SHALL BE NEW, UNLESS OTHERWISE SPECIFIED.
- EXACT LOCATION OF ALL SUPPLY DIFFUSERS, RETURN AIR GRILLES, AND EXHAUST REGISTERS TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS.
- ELECTRICAL – DISCONNECTS AND/OR BREAKERS, POWER WIRING THRU MOTOR CONTROL DEVICES TO ALL MOTORS OR TO JUNCTION BOXES OF FACTORY WIRED EQUIPMENT ARE PROVIDED UNDER THE ELECTRICAL DIVISION OF WORK. MECHANICAL WORK SHALL INCLUDE CONTROL AND INTERLOCK WIRING REQUIRED FOR PROPER OPERATION OF THE SYSTEM, AND SHALL INCLUDE FURNISHING OF MAGNETIC STARTERS OR CONTACTORS WHERE REQUIRED.
- COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT BEFORE ORDERING.
- PROVIDE U.L LISTED HEAVY GLASS FIBER FABRIC DUCT CONNECTOR AT FAN CONNECTORS; FABRIC CONNECTORS SHALL BE AT LEAST 4" LONG AND HAVE METAL COLLAR AT EACH END; ALLOW AT LEAST ONE INCH SLACK TO ELIMINATE VIBRATION TRANSMISSION.
- PORTIONS OF DUCTWORK VISIBLE THROUGH SUPPLY AND RETURN AIR OPENINGS SHALL BE PAINTED FLAT BLACK.
- LOCATIONS SHOWN FOR EQUIPMENT ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL COORDINATE WITH THE FIELD CONDITIONS FOR THE EXACT LOCATION AND MODIFY DUCT SYSTEM ACCORDINGLY.
- CONTRACTOR SHALL FIELD VERIFY AVAILABLE SPACE FOR DUCTWORK BEFORE FABRICATING. CONTRACTOR SHALL MODIFY DUCTWORK IN APPROVED MANNER TO FIT AVAILABLE FIELD CONDITIONS.
- SEAL DUCTWORK & INSULATION WITH GLASS FABRIC AND MASTIC. NO EXCEPTIONS ALLOWED.
- WEATHER PROTECTION OF EQUIPMENT AND MATERIALS SHALL BE THE HVAC CONTRACTOR'S RESPONSIBILITY.
- COORDINATE ALL WORK UNDER THIS DIVSION WITH WORK UNDER OTHER DIVSIONS. PROVIDE ADJUSTMENTS AS NECESSARY FOR EQUIPMENT, APPARATUS, DUCTWORK, ETC. ALL ITEMS MOUNTED AT OR BELOW THE CEILING, AND ANY ITEM PENETRATING THE CEILING, SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.
- PROTECTION OF WORK DURING CONSTRUCTION PROVIDE PROTECTIVE COVERS, SKIDS, PLUGS OR CAPS TO PROTECT EQUIPMENT AND MATERIALS FROM DAMAGE AND DETERIORATION DURING CONSTRUCTION. PROTECT EXPOSED COILS WITH PLYWOOD OR OTHER SUITABLE RIGID COVERS TO AVOID DAMAGE TO FINIS. PROVIDE COVERS TO ELIMINATE DUST COLLECTION WITHIN DUCTWORK AND/OR EQUIPMENT. DO NOT OPERATE EQUIPMENT DURING CONSTRUCTION.
- ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR PROPER MAINTENANCE AND SERVICE IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR ALL DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF FLOORS AND WALLS PERTAINING TO HIS WORK, UNLESS NOTED OTHERWISE.
- ELECTRICAL CHARACTERISTICS SHOWN ON SCHEDULES ARE DESIGN VALUES ONLY AND SHALL BE VERIFIED AND COORDINATED PRIOR TO ORDERING EQUIPMENT.
- ALL DUCTS TO BE RUN CONCEALED UNLESS NOTED OTHERWISE.
- DUCT SIZES SHOWN ON DRAWINGS ARE INTERIOR DIMENSIONS. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

DESIGN CONDITIONS

SEASON	OUTSIDE	INSIDE
SUMMER	95°F DB, 82°F WB	75°F DB, 50% RH
WINTER	27°F	70°F

MECHANICAL LEGEND:

DDC	DIRECT DIGITAL CONTROL
EF-1	EXHAUST FAN DESIGNATION
AHU-1	AIR HANDLING UNIT DESIGNATION
VAV-1	VAV BOX DESIGNATION
BFP	BACK FLOW PREVENTER
PRV	PRESSURE REDUCING VALVE
A 250 9x9	DIFFUSER DESIGNATION (TYPE, CFM, NECK SIZE)
→HWS→	HOT WATER SUPPLY
→HWR→	HOT WATER RETURN
→CWS→	CHILLED WATER SUPPLY
→CWR→	CHILLED WATER RETURN
→RS→	REFRIGERANT SUCTION
→RL→	REFRIGERANT LINE
→D→	CONDENSATE DRAIN
↔ ↔	GATE VALVE
↔ X ↔	BALANCING VALVE
⊙	PRESSURE GAUGE
⊞	THERMOMETER
⊞	PLUG VALVE
⊞	UNION
⊞	STRAINER
⊞	CHECK VALVE
⊙1	SENSOR (TEMP & HUMIDITY)
↔ X ↔	DIFFUSER, DIRECTION OF FLOW AS INDICATED
↔ ↔	SIDEWALL REGISTER/GRILLE
□	RETURN AIR OUTLET
■	EXHAUST OUTLET
20 x 6	DUCT SIZE, FIRST NO. IS SIDE SHOWN
⊞	ELBOW WITH TURNING VANE
↔ ↔	MANUAL VOLUME DAMPER
↔ X ↔	3 WAY MIXING VALVE, ELECTRIC MODULATION VALVE
↔ X ↔	2 WAY MIXING VALVE, ELECTRIC MODULATION VALVE
N.O.	NORMALLY OPEN
N.C.	NORMALLY CLOSED
VAV	VARIABLE AIR VOLUME
OA	OUTSIDE AIR
RA	RETURN AIR
VFD	VARIABLE FREQUENCY DRIVE
UNO	UNLESS NOTED OTHERWISE
BV	BALANCING VALVE
DW	DRY WELL

NOTE:

BASE BID DESIGN:  
MECHANICAL COOLING TOWER AND BOILER  
SYSTEM WITH WATER TO WATER HEAT  
PUMPS, ASSOCIATED PUMPS, PIPING AND  
CONTROLS.

ALTERNATE BID DESIGN:  
GEOTHERMAL SYSTEM WITH WATER TO  
WATER HEAT PUMPS, ASSOCIATED PUMPS,  
PIPING AND CONTROLS.

FINAL SUBMISSION  
APRIL 18, 2012

IF SHEET IS LESS THAN (30"x42") IT IS  
A REDUCED PRINT; SCALE ACCORDINGLY

M001

 766 MIDDLE ST., FARMINGDALE, AL 36532 251-990-5778 ARCH. & ENGR. SEAL 	NATURAL RESOURCES & ENVIRONMENTAL AFFAIRS SATISFACTORY TO DATE	P.W. DWG. NO.	DEPARTMENT OF THE NAVY NAVAL SUPPORT ACTIVITY PANAMA CITY, FLORIDA
	SAFETY DEPARTMENT SATISFACTORY TO DATE	DRAWN BY R. LONDOÑO	PANAMA CITY JOINT OUTPATIENT CLINIC NAVAL GULF COAST HEALTH CARE MECHANICAL GENERAL NOTES SYMBOLS & LEGEND
	FIRE DEPARTMENT SATISFACTORY TO DATE	CHECKED BY R. DeLOACH	
	PUBLIC WORKS SUPERVISOR SATISFACTORY TO DATE	SUPERVISOR B. COFFMAN	
			APPROVED DATE
		PUBLIC WORKS OFFICER	SCALE MACC. T.O.# SHEET 1 OF 12